

Energy Award - JAY CASHMAN, INC.

MMA0501 - EC1 Wind Turbine Installation - Mass Maritime Academy

Massachusetts' first state owned, commercial sized wind turbine was commissioned at the Mass Maritime Academy, Buzzards Bay, in June 2006. Jay Cashman, Inc, serving as general contractor for the \$1.4 million project, installed the 660 kilowatt Vestas 47 turbine.

DCAM project team

Paul Chroniak - Deputy Director
Bill Rafuse - Project Manager
Mira Green - Project Engineer
Don Marcotte - Resident Engineer
John DiModica - Energy Program Manager

Project Design Team

Jay Cashman, Inc. - General Contractor
Energy Management, Inc. - Management Support
ESS Group - Permitting (NOI and FAA)
Solar Design Associates - BOP Electrical Design
LeMessurier Consultants - Foundation Design

Cost and Savings

Final Project Cost - \$1.4 M
Estimated annual electrical savings - \$200,000/year
Simple Payback - 5.5 years
(assuming Renewable Energy Credits at \$.05 per kWh)
Project Life - 20-25 years

Project Highlights

First state-owned, commercial capacity wind turbine
Vestas V47 Wind Turbine (660 kW)
Hub Height - 164 ft. (50 meters)
Blade Sweep - 154 ft. (47 meters)
Blade Tip Height - 241 ft. (73.5 meters)
Blade RPM - 15-20
Estimated Capacity Factor - 25%; 1,461,746 kWh/year
82% of output used on MMA Campus
Estimated to supply 25% of MMA Campus' annual electrical consumption

